

1 **ABSTRACT**

2 A flash driver tracks data stored in a flash memory device through the use  
3 of logical-to-physical sector mapping. The mapping is stored in a data structure  
4 and allows data to be written into the next free physical sector in the flash memory  
5 medium. Write operations complete quickly, because there is no need to perform  
6 an erase operation in order to write new data on to the flash memory medium.  
7 Data loss due to power interruption during a write operation is also minimized by  
8 the described implementations. The logical-to-physical sector mapping stored in  
9 data structure is backed-up on the flash memory medium. In the event there is a  
10 catastrophic power interruption, logical-to-physical sector mapping can easily be  
11 reestablished by scanning the backed-up mapping in the flash memory medium.  
12 The backed-up information can be stored in a spare portion of a NAND or NOR  
13 flash memory medium.  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25